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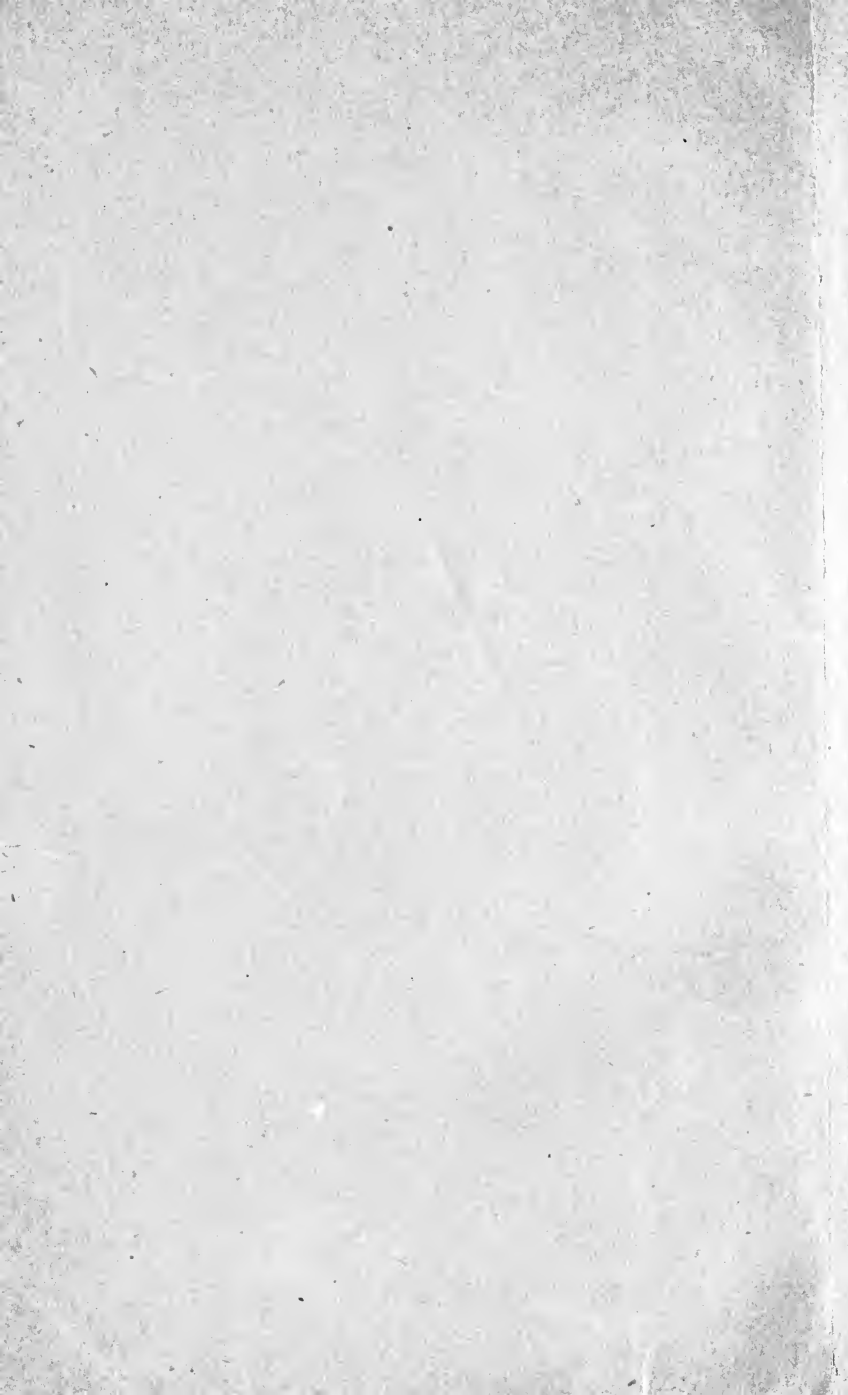
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Gen. Dr. Vorseußer.

"Falsi nominis Scientiae."

EVOLUTION

Review of Dr. D. S. Jordan's course
of lectures before the University Club
of San Jose, by Dr. A. J. Nelson.



A REVIEW

-- OF A --

COURSE OF LECTURES

-- ON --



EVOLUTION



DELIVERED BEFORE THE SAN JOSE UNIVERSITY

EXTENSION CLUB

-- BY --

PROF. DAVID STARR JORDAN, LL. D.,

President of the Leland Stanford Junior University.

REVIEWED BY

REV. A. J. NELSON, B. A., S. T. D.,

Of the California Conference of the Methodist Episcopal Church.

Unveil error, expose its deformity, and truth will have the right of way.

THE UNIVERSITY OF CHICAGO

V

PREFATORY.

By BISHOP C. H. FOWLER, LL. D.

It is the business of a university to teach all knowledge. It cannot approximate this end without awakening thought. So, we must not be surprised when the chief representative of a university starts questions and reaches conclusions that cannot be classified with long accepted Christian doctrine. It does not follow that the old doctrine will politely bow itself out of existence. Evolution, in an accommodated use of the term, is popular in its apparent generalizations and in its show of philosophy. Progress is as old as the race. It contains nothing startling. Evolution that can be almost synonymous with progress can be handled in a showy way and smack much of science. Lectures on such conceptions can be made popular and instructive. But when the theme is confined to a strictly scientific treatment it is driven into positions and to conclusions that antagonize the religious life and faith of many centuries.

It is not amiss to point out the fact that if scientific evolution is true, then there remains no foundation for Christian faith; then the Bible is a fiction; God is unthinkable; Jesus Christ is a Jewish tramp wandering about Palestine with a few peasants; the Holy Ghost is a chimera; pardon is a delusion; saints are fools or hypocrites; martyrs are the supreme idiots of the ages; heaven and hell are inventions of priests, and death ends all. With so much involved, are we ready to surrender everything without one manly protest and struggle? Do we want "evolution clubs" organized for our children where the chief result of training will be *doubt* and nearly unquestioning acceptances of all the ruin cited above?

Dr. Nelson puts some stubborn questions. He thrusts Dr. Jordan's lectures with interrogation points till they seem covered with pin-feathers.

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PREFATORY.

The thoughtful and scholarly world will be slow to part company with the great Agassiz for the long-exploded theory now revamped by a new style of delivery. He found nothing in environment that could mature the germ of a fish, or bird, or quadruped, into any other than its own type. Or that could stop it short of its own type and leave it life. He said that the germs of a man at different stages could not be distinguished from the other germs either by the analysis of chemistry or the power of the microscope. Yet each was shut up to its own type. This can be explained only by the presence of an invisible spiritual Presence that determines the type.

When science has answered this ground of Agassiz by incontrovertible facts, then it will be time enough to accept the flat assumptions of the evolutionists.

One cannot help recalling the ideas of James Martineau, in which he holds that it is pitiable to see these evolutionists begging for the concession of the smallest granule of power with an infinitesimal tendency to increment, and from this they will produce the universe without even smuggling in anything large enough to raise a question (I quote from memory.) They equate it simultaneously, *backward to zero and forward to the sum of things*. Nevertheless, it is a mean thing for a philosopher to crib causations with hairs' breadths, put it out at compound interest though all the time, then deny the debt. The power that eventuated the universe, whether drawn out through unnumbered ages or concentrated into one blow, is nothing less than infinite and nothing lower than divine.

If our new and great universities are transformed into Evolution Propaganda, Christian men will think that there is still room in California for an old-fashioned university that does not exclude the knowledge and possibility of God.

PRELUDE.

"Man is but a reed, the weakest in nature, but a thinking reed."
—Pascal.

"The supreme, scientific idea of this age, by which this age will be distinguished in the history of thought, is EVOLUTION.

Not in its distorted and exaggerated form as a Deicide, but in its theistic form, having a divine, initial impulse to help it up the ascending types of life ; such an evolution as can be traced in the luminous teachings of Agassiz.

This great order of nature holds over the unfolding of human history. The ages behind us have been perfecting the types of our life and maturing results, which shall soon greet us with their songs and gladness."—*Bishop Fowler, "Problems of the 20th Century."*

THE BOOK OF NATURE.

"Speak to the earth and it shall teach thee."—Job.

The great volume is before us written in strange hieroglyph, but the key is in mortal hands. The divine secrets hid away in the immeasurable cycles of untold ages, and the wonderful revelations without a chronology, may be translated by man. But nature keeps no free schools, and issues no free tickets to her libraries of learning.

"Speak," is the divine price put upon knowledge ; interrogate, desire to get the secret ; free yourself from all

prejudice, look at truth in the true spirit and from the right stand-point, then nature will unfold her sacred scrolls and answer your questions.

She has epics and lyrics for the poet ; cartoons, friezes and sculptured beauty for the artist ; points, lines, curves, cones and motions for the mathematician ; rocks, fossils, eruptions, ripple marks and revolutions for the scientist ; plans and purposes, progress and power and designs for the philosopher and theologian—all is the working-plan of the divine mind in unfolding His eternal, infinite ways to finite mind.

THERE IS AN EVOLUTION OF NATURE.

"One indissoluble chain binds together all nature."—Humboldt.

The methods of the Author of nature may be examined, for the law by which things are held together is exact and mathematical. The great law of chemical equivalents binds into form the rocks, metals, liquids and gases in arithmetical proportion ; crystals, mountains and worlds with their motions in space, are all exhibitions of law. The visible world is a divine system of mathematical science—spheres, cubes, squares, angles, lines and motions. Astronomy is a system of celestial mechanics ; geometrical forms moving according to geometrical laws. Mineralogy is a divine text-book in solid geometry, and the arrangement of leaves on their stems is a chapter on arithmetical ratios.

"The universe is the realized thought of God."—Carlyle.

The universe, including man as the climax of being, is an evolution of God's thought revealed in His plans. This world and all worlds, including all phenomena, physical and spiritual in all detail are but the manifestation of the invisible and personally conscious intelligence working out

His plans according to His own methods. Earth must be turned upside down and inside out in order that iron mountains might be formed and the precious metals might be deposited in the secret places of the rocks ; that salt might be brought to the surface, and minerals within the reach of man ; that stone might be put in the quarries for his palace and marble for his tomb. All the lower forms of being are both prelude and prophecy of man, the last term in the ascending series.

THERE IS AN EVOLUTION OF MAN.

"Man cannot think highly enough of man."—Kant.

Man is God's ideal of creation—he came into the world bearing His own image—the highest evolution of God's thought ; endowed with reason, imagination, conscience and will ; a microcosm to be evolved and developed by special law. The top-stone of the temple. The incarnation of soul and spirit in a free personality ; not a developed animal, but related to the animal kingdom as the scaffolding is to the temple.

A being destined to command all the forces of nature ; able to cut down the forests and quarry the rocks from their mountain homes and convert them into cities ; to melt the hills of iron and mould them into instruments of husbandry and shape them to the tracks of commerce. Able to harness the lightning and imprison the steam and turn the world into a speaking gallery, and hold communion with the Creator Himself.

"Connection exquisite of distant worlds !
Distinguished link in being's endless chain—
Midway from nothing to the Deity."

Man's relation to his Creator is contained in the universal formula—

"In Him we live and move and have our being."

THERE IS AN EVOLUTION OF HISTORY.

"Is it not worth while, for the sake of the history of man and nations, to study the surface of the globe in its relation to its inhabitants?"—Goethe.

The see-saw of civilizations, empires and nations is the great law of progress—the evolution of national character is related to the graves of the buried past. Out of the ruins of the old come the institutions of the new. Death is the prophecy of life.

"Man is the purpose toward which the whole animal creation tends from the first appearance of the paleozoic fish."—Agassiz.

The fish is not the first form of man, not the first cast of the divine Artist, but a prophecy of the coming man: a chapter in the plan of God. There is a universal stamp put upon all organic being. Individuality has permanent and fixed laws that are immutable through all changes. Each, after its own kind, is the divine law transmitted to all living forms. Flower and fish, forest and family have kept their forms and preserved their habits amid all the revolutions of time. But there is a plan, a purpose, toward which all creation tends—plant, animal, man and nations. Had we seeds from the plants of Eden they would produce the same kind of flowers in California as in their native home. The form, color and odor only can be affected by environment.

"Nations are God's training schools for the development of man."—A. J. N.

Nations are not multitudes or masses of people, but organized men, bound together by some thought-force. A complete history of man would include the history of all the nations of the world, and perhaps the history of all worlds. The national training of the individual is part of the divine plan.

The first great convention was held at Babel, when they

resolved to build a race-monument ; but their plans were defeated by the great law of decentralization. Their speech was confounded and the sand-lot mob was dispersed.

Israel was evolved, by a divine process, from the best stock and under the most favorable environment.

Abraham and family immigrated to the best country and to the best climate on the face of the earth, and were schooled for two hundred years. They were expatriated and trained in the best school and among the best educated people of the world. Here they developed a character and a leader, and returned to their old home and planted a new civilization.

The temple was a monument of the true, the beautiful and the good. Religious thought-power has been the intellectual and moral muscle that has elevated all peoples. Their monuments are the keys to their characters, and the character of their faith, and their loyalty to their beliefs, are the laws of their development.

The force of religious ideas gave birth to every motion that quarried the stone for the temple, and built the mighty superstructure of the pyramids.

The Parthenon was the incarnation of art, oratory, philosophy and poetry. Athens was the intellectual gymnasium of the race. They were not scientists, studying rocks and fossils of forgotten ages, but a nation of poets — the world's best dreamers — struggling for the light, searching for God. Their history marks the limits of the highest possible intellectual evolution. They must have more light, moral light, or perish.

The great law of historical evolution is found in the revolutionary power of ideas. America has reached the greatest results and highest development of all the centuries. She has built the state on the doctrine of a personal God, a Divine Superintendent and Supreme Judge, and the political equality and personal liberty of man.

Caste, culture and law have all failed in the past ; the

evolution of the future nation and the future man must depend upon a correct idea of God, and a complete loyalty to His will.

Any lecture system that promotes these two thoughts will be an invaluable blessing to any community.

Bishop Fowler is right when he so emphatically affirms that EVOLUTION is the supreme idea of the age. He states his theory of evolution in his own brief way: "This great order of nature holds over the unfolding of human history."

Human history is the unfolding of God's plans. The past is the prophecy of the future; for God's methods of dealing with men are the same for all ages.

This age recognizes, as never before, the fact of God as the great factor in history. The personal superintendency of all the forces of history "have been perfecting the types of our life and maturing results in the ages behind us."

An evolution of events, without God behind them, would not only be unchristian, but unphilosophic and unscientific.

With such a conception of evolution as the scientific idea of this age, we looked forward to the course of lectures announced by Dr. Jordan with great interest. A scientific savan was to speak in the interests of the higher education, as the representative of a great university, in his own chosen field, and upon his own specialty; we had a right to expect a great treat—at least a great literary and scientific entertainment. Dr. Jordan was, therefore, received without prejudice and greeted with enthusiasm for he had come to tell us the secret of ourselves.

"Whence came I here, and how, so marvelously
 Constructed and conceived? Unknown! this clod
 Lives through some high energy;
 For form itself it could not be."—*Derzhavin.*

LECTURE I.

CLASSIFICATION OF NATURE AND THE PHILOSOPHY OF LIFE.

SYLLABUS—Objects in nature may be viewed—As they appear—As they were—As they are—As they really are—What we know about them we know as a state of change—Species are not entities but phases in change—Varieties due to innate tendencies—Double parentage and other surroundings.

Dr. Jordan began his lecture with a weird poem from *Boyesen*. There is witchcraft in his skill. Poison lurks in the brilliancy of the basalisk and deadly error is hid in the wild and beautiful jungles of poetry.

“A sacred kinship I would not forgo,
Binds me to all that breathes.
I am the child of earth and air and sea—
My lullaby by hoarse silurian storms
Was chanted. Through endless changing forms
Of plant and bird and beast, unceasingly
The toiling ages wrought to fashion me.
So, these large ancestors have left a trace
Of their strong souls in mine, defying death and time;
I grow and blossom as the tree,
And ever feel deep, delving, earthy roots
Building me closer to the common clay;
Yet with its airy impulse upward shoots
My soul into the realms of light and day.

And thine, O Sea, stern mother of my soul,
Thy tempests rock me; and thy billows roll.”

This bewitching poem is a key to the course of lectures; though given without comment it created an atmosphere which lasted during the six weeks of the lecture-course. Boyesen disclaims all kinship with Adam. He was no mud-dried silurian—the sea was the “stern mother of his soul.” He was not a poor sinner distilled through long ages of depravity; his father was a “monad,” and himself was nurtured on the music of the storms, why should he not defy “death and time?”

Professor Jordan did not stick very close to his syllabus in this introductory lecture. He said that the subject of evolution was to have a large place in the University course; seventy-five lectures were to be given to it; that he would endeavor to reduce this course to six. Next he recommended the text books for the people to read. He said Darwin's “Origin of Species” was “the greatest book since St. Paul.” He did not claim Paul as an evolutionist, but places the “Origin of Species” next to the Epistle to the Romans and Darwin next to the great apostle, and the greatest genius of the race.

He astonished his audience with the announcement that he was not in harmony with the old college *curriculum*. That he was a disciple of Darwin, and that Darwinism was in harmony with the Bible.

His classification of the objects of nature is no credit to a scientific savan—but was necessary to provide a basis for his lecture course. It is a fallacy that has no basis in facts. Take away his classification and the bottom falls out of his tub. The momentary state of things means nothing. “A state of change” is an abstraction, and not a definition for a concrete object. If there are no real objects in nature, why, and what is there to classify? He utterly ignores the greatest scientific movement of the century—the new method of the study of science. The historical method of study is that which characterizes this age. It has done

more for scientific progress than all things else combined. To know anything scientifically, we must know it historically ; must see it in all its relations in time and space. The chemist can not know an acorn by the processes of the laboratory ; he must plant it and watch it grow into the oak, and wait till it reproduces itself by bearing acorns.

We cannot scientifically know man by his ancestry, could we trace his family tree to the very root ; man belongs to two worlds, and we must have his entire history to bring him in the range of science — hence man cannot be scientifically known.

His classification of objects was to enable him to define species, so that there would be an apparent basis for his superstructure. If "species are not entities at all, but phases in change," then all things (if there are any things) are identical in space, and the only distinction between a monad and a man is that of time — a man is but another "phase in change" of the monad. *Quod erat demonstrandum.*

Species is not an abstract notion, a nonentity, or even a name of a class, but a reality ; a concrete historical fact. Species is a collection of individual characteristics or resemblances into a single group, and all beings having these characteristics belong to the same species. Species is no more an abstraction than man — man is unthinkable only as a concrete individual person. Species is the common denominator of several distinct factors, and is not the common denominator, as really a number as the several factors? All this talk about species not being entities is logomachy, and unworthy the consideration of an intelligent public.

The "Origin of Species," which is the sum of Darwinism, is a bold assumption in the face of all the millions of facts Darwin himself has gathered. There is not one in his favor ; his theory contradicts all his facts, and hence

unscientific. It is opposed to all philosophy, for it rejects the only cause for the existence of organized bodies : that of specific life. It is preposterous, for it contradicts the only reason why one body differs from another, and destroys all distinctions between objects.

If there is no distinction between sameness and similarity in objects, there is no basis for classification, and all knowledge of them is impossible, and hence science is impossible. Dr. Jordan proposes to reduce all the millions of species to one form or kind — to sameness in the cell filled with protoplasm — and all differences in objects to variety of this one cell, produced by environment. So that man is but a single variety of the monad, and not a distinct species of being. To reduce this dogma of species to an exact thought, that may be understood by all, and may be made to appear in its hideous nakedness, we will put it in form of an equation :

Monad *plus* environment *plus* time equals Darwin. Man is but “a phase in change” of the monad ; a variety of the primal *genus*.

LECTURE II.

ORGANIC LIFE AND LAW OF DEVELOPMENT.

SYLLABUS—Law of Heredity—Creatures resemble their ancestors—Each creature not an “ego,” but a mosaic of its ancestry—Physical basis of heredity—Theories—Encasement—Pangenesis—Sex gemmules—Continuity of germ substance—Law of external stimulus—Environment—Is character acquired inherited ?—Individuality—Struggle for existence—Theory of population.

The Professor introduced his second lecture with that matchless vagary of Walt Whitman on the influence of environment upon character :

" There was a child went forth every day,
 And the first object he looked upon, that object he became,
 And the object became part of him for a day, or a part of a day,
 Or for many years, or stretching cycles of years,
 The early lilacs became part of that child.
 The family usages, the language, the furniture, the yearning and
 swelling heart,
 Affection that will not be gainsayed, the sense of what is real, the
 thought that if after all it should prove unreal,
 The doubts of day-time, the doubts of night-time, the curious
 whether and how —
 Whether that which appears is so, or is it all flashes and sparks?

 The horizon's edge, the flying sea crow, the fragrance of the salt
 marsh and shore mud,
 These became part of that child who went forth every day, and who
 now goes, and will always go forth every day."

This is the scientific key to life and character. We are
 but creatures of circumstance; the difference between men
 is due to environment. This is less than half a truth, and
 hence a dangerous error. The personality of the child is
 left out. This poem and this theory makes too much of
 circumstance; let personality come to the front and the
 facts are reversed, and they prove that man may create his
 own circumstances, and men of character do.

The doctrines "that creatures resemble their ancestors,
 that like begets like," are common postulates, and need no
 discussion; but that "each creature is only a mosaic of its
 ancestry," a complex being without personality — "not an
 ego" — is an absurdity so monstrous as to perish on the
 threshold of its birth. Yet this is a logical conclusion
 from Darwinism. If "like begets like," how could the
 monad — a cell filled with protoplasm — beget a man with
 personality? Now, if I am neither my father nor my
 mother, my grandfather nor my grandmother, and am not
myself, who am I?

All the theories of a physical basis of life are abandoned

by all respectable thinkers — encasement was killed by the microscope ; pangenesis died with *la grippe* ; sex gemmules committed suicide ; germ substance was dead-born. Life, whether vegetable, animal or human, remains a profound mystery, beyond the realm of science. The scalpel and microscope cannot find it ; the crucible and retort say it is not in me. It is a transcendental problem, formulated by St. Paul — “ In Him we live, and move, and have our being.” Life, motion and being are in God.

The influence of external nature on the individuals was a most interesting discussion. Here Dr. Jordan showed himself a great master of facts in his chosen field of science.

He claimed that 500,000 species of animals and more than that many species of plants are now catalogued, and 10,000 were being added each year ; that the extinct species were far greater than the living ; that species were now disappearing. The auk, the Labrador duck, sea-cow and passenger pigeon were examples. He related many curious facts, and held the attention with the power of the sorcerer. He showed how species were dependent on species, and how the dependencies existed between the animal and vegetable world. How clover depended on cats, bees, seal, salmon and otter, carp and canvas-backs — he entertained his audience with curious facts of the substitution of one species for another — how rats took the place of flies in New Zealand. He stated the law of increase, in some of the most remarkable cases, of codfishes and sparrows. He said that three flies would devour a dead horse as quickly as a lion, for before the horse was half gone there would be millions of flies — that one pair of flies would produce a 100,000,000,000,000 in ninety days.

He did all this to show that there must come a time of final equilibrium, when death would come, and extinction would begin, and the balance be restored. He said : “ More are born than mature ; all live who can ; all are de-

stroyed that cannot meet the conditions—the killing was never indiscriminate. The life history of the individual is an epitome of the life history of the race.”

HIS SCIENTIFIC SOLUTION OF DEATH

Is but an application of the old Malthusian law of population to animals and plants.

This law lacks one important factor as an argument : it is not true. This has been shown so frequently and for so many years that the wonder is that it should be again repeated, and that by so great an educational leader as Dr. Jordan. The statement that population increases in a geometrical ratio, while food increases in an arithmetical ratio, contradicts all facts, and the theory was discarded before the Doctor was born.

If it were true that man and animals increased as the numbers 2, 4, 8, 16, etc., while food increased only as the numbers 1, 2, 3, 4, etc., then death would be the fate of a large proportion, and in this precise mathematical ratio.

That any intelligent man should repeat so grave an error in the shadow of the school houses is another fact to be accounted for by some one.

It has been shown, when the population of England was but two millions, famines were frequent. Now, that it has been multiplied by ten, instead of eighteen millions dying from want of food they have bread and enough to spare. This law has no existence, and hence has no application to fish and fowl, and flies and fleas, how much less to man.

Mathematical law undergirds the universe. Plants and planets, life and death reveal the mathematics of nature. Sublimar than the discoveries of Euclid or the revelations of Pythagores. Kepler's laws of planetary motion, the phyllotactic arrangements of leaves on their stem, the tables of human mortality are irrefragable evidence that the

Great Architect is a geometrician and works by mathematical law ; but this statement of Dr. Jordan is a fancy, and not a fact. When applied to men it has socialistic revolution in it ; it was invented in the interests of the few ; it is too anti-republican to be applied to dogs or donkeys, and ought not to go unchallenged. It is not true that the majority suffer and die for the want of food. It is not true that the population is greater than the supply of food, else doom is fixed before birth, and mortality and misery, and mobs are questions of fate. It is not true that the misery of Ireland is because they produce more babies than potatoes ; nor that famine is in the world because the world's warehouses are empty.

The Minneapolis mills can feed all the hungry of Russia, and California furnish grain enough to supply the warehouses of the famine district.

Science must furnish a better theodicy than this if it would claim the respect of intelligent people. No generalization has been made broad enough to include all facts, and hence no theory can be complete. Science must not be slandered.

Man can trace plan and purpose in all nature, but not the reasons why. Nature is a symbol of mind, a system of concrete thought ; a divine sentence, chapter or book, made up of distinct words ; a formulation of distinct thoughts — not a development of a single thought, but a union of a system of thought.

"Laws below are sisters to the laws above," said Socrates. Natural and 'spiritual' law is not "identical," as Professor Drummond teaches, but related. The moral world is the outcome of the natural world. A complete theodicy might show that sacrifice is both the science and theology of death. The vegetable world lives by consuming the light, air and soil, But behold the beautiful life that results. Animals live on the vegetable world and on

one another, and man upon all ; but the ideal man is the one who voluntarily sacrifices himself for the good of others. Death is the shadow of a great truth ; sacrifice the highest exhibition of moral force, and not a necessity of mathematical law ; and the doctrine of "the struggle for existence," on which Dr. Jordan depends for so great a portion of his lectures, is only a scientific fancy, without a fact to support it. Fancy may be a factor of the poet, but not of the pedagogue.

LECTURE III.

NATURAL SELECTION.

SYLLABUS—Natural selection—Survival of the fittest, in the struggle for existence—Man changes species by changing conditions—As in seed corn—Stock breeding, poultry, pigeons, rabbits, orchards, etc.—Natural selection perpetually going on—No progress without it—Gills in man—Embryology reveals the history of the race.

"Each species of animal or plant has been subjected to the various influences implied in the term 'natural selection,' and under varying conditions its representatives have undergone many different modifications."—*D. S. Jordan*.

"Naturalists of high authority have followed Mr. Darwin through all his arguments, and have shown in the clearest manner that his theory is inconsistent with the very facts upon which he has rested it. The theory of natural selection."—*Sir David Brewster*.

"There are, no doubt, differences in the individuals of a species, depending on soil and on different conditions of heat, light and moisture. But these differences are not in-

compatible with the idea of a common origin, and there is always a tendency to return to the type. The varieties of apples and pears produced by grafting, when allowed to grow wild, produce the original crab from whence all the varieties come.”—*Prof. Balfour*.

“Why, if such transformations have occurred, do not the bowels of the earth preserve the records of such a curious genealogy?”—*Curvier*.

“Everything declares the species to have its origin in a distinct creation, not in a gradual variation from some original type.”—*Sir Charles Bell*.

“That species have a real existence in nature, and that each was endowed at the time of its creation with the attributes and organs by which it is distinguished, is the result of my investigation.”—*Lyell*.

“It is my belief that naturalists are chasing a phantom in their search after some material gradation among created beings, by which the whole animal kingdom may have been derived from a single germ or germs. It would seem, from the frequency with which this notion is revived—ever returning upon us with hydra-headed tenacity of life, and presenting itself under a new form as soon as the preceding has been exploded or set aside—that it has a certain fascination for the human mind: a desire to explain our own existence.”—*Agassiz*.

“Natural selection is perpetually going on,” “Conditions change and change adaptations,” “All forms diverging; no structure returns to previous stages.”—*D. S. Jordan*.

“In the fossil remains of the pre-Adamite ages there is not the slightest proof of any variations in the successive inhabitants of the earth.”—*Sir David Brewster*.

“The experiments upon domesticated animals and culti-

vated plants, on which adherents base their views, are entirely foreign to the matter in hand, since the varieties thus brought about by the fostering care of man are of an entirely different character from those observed among wild species—therefore positive evidence is inapplicable.”—*Agassiz*.

“Should a wise man utter vain knowledge and fill his belly with the east wind?”

“Ask now the beasts, and they shall teach thee; and the fowls of the air, and they shall tell thee.”—Job.

All great scientists are a unit in rejecting “Natural Selection” as untrue and unscientific. Beside, all the beasts and birds are against Professor Jordan—his own facts condemn his theory. Must facts give way to fancy?

In all his illustrations of changes in animals and plants not one new species has been produced. The dogs, horses, sheep, pigeons and fruit have been changed a little in form, size, color, etc., but nothing new has been produced. What if the wool may be made finer on the sheep, the bush taken out of the dog's tail, the horns made shorter in the cow, the legs longer in the horse, by breeding? Does not the sheep remain a sheep? the cow a cow, with all her depravity? and the dog continue to bark? The pigeon may spread his tail, but never becomes a link between the parent and the turkey-cock.

Let him show us one new bird, produced in a thousand years, among all the fowls of the mountain; one new beast since human history began, and he will command some respect as a teacher.

Give us a cross between the sheep and the goat, Professor—a real, brand new *something*—and we will be delighted to listen to the remaining sixty-nine lectures on Evolution. A specialist, an enthusiast in natural selection, a scientific savan, ought to be able to produce this *some-*

thing, or give a scientific reason why. A solution of either horn of the dilemma will be equally satisfactory.

“Embryology reveals the history of the race. The inside of an animal tells its ancestry, the outside its environment.—D. S. Jordan.

The lecturer here introduced a diagram of the embryo man in his three stages of evolution.

First, a man is a plant; then an animal, a fish with gills; then a real, live baby. I never liked fish, and claim no relation with them. If I ever were a plant, I think I must have been a daisy. But Professor Jordan is an enthusiastic Darwinian, and he is delighted with these three chapters in his history, and is proud of his family tree. He has mastered all the secrets of his own biography, and no man who sees his splendid form will doubt that he is the “survival of the fittest.”

No man can object to his facts, or to his diagram of the facts. Facts, like the multiplication table, will not down: they will not die by ridicule. His facts are not new. Embryology is older than Darwin.

Professor Jordan gave us two theories of evolution—Neo-Darwinism and Neo-Lamarckism. Darwin accounts for all changes in species by natural selection; Lamarck claims that all differences are inherited.

Now, why did not the Professor give us Lamarck's theory of the “Three-souled Foetal Development?” Was he ignorant of it? or did he intentionally withhold it? Lamarck denied that there were three distinct souls manifest in embryology, but that plant life emerged into animal life, and animal life again into human life; or, a life that included both these below. That this was not an evolution, not a development, but a process of successive creations.

Suppose man's history could be traced backward through the embryo to bird, fish, flower, monad—then

what? Does it follow that man is a developed brute? man's animal nature, in the most complete developed form, is not man? The plant life and bird life that seem to mark his embryonic history, if born in these different stages, would not be a baby. Man needs an upper story put on the animal by the Great Architect before he is human. From whence came reason, personality and conscience? "Gird up thy loins now like a man"—answer, or confess thy impotency.

Is not man a microcosm? a little world, containing all the forms of life below him, and the image of the Deity above him?

Man cannot be put into a diagram; he is more than anatomy and physiology. Science must compass all the facts concerning man before it should presume to make a deduction. No broad-minded man will risk his reputation on poorly digested and uncorrelated facts.

How little physical forms have to do with man! Esop must be regarded as among the "survival of the fittest," but how will he compare, physically, with John L. Sullivan. No public lecturer is authorized in this age to give an opinion concerning man independent of the facts of psychology. Specialists are lop-sided teachers—useful in their place; but this age demands a highly-cultured, well-balanced mind and well-rounded-up scholarship.

LECTURE IV.

DEGENERATION — EVOLUTION BACKWARD.

SYLLABUS—Degeneration due to want of effort, intensified by parasitism—Fish in Mammoth Cave—Sheltered life leads to inefficiency—Parasitic life to degredation—Applications to human life—"The Lord's poor," "The Devil's poor," and paupers.

"Some persons think it hard that we say to the public : Give no relief to men or boys asking for food, to women begging, to children with baskets, ill-clad, wasted and wan."

" 'I cannot resist the appeal of a child,' they say. Do you know what this means? It means the perpetuation of this misery. It means condemning to a life of hunger and want, and exposure, these children. It means education of the street, the after life of vice and crime."—*D. S. Jordan*.

This is a part of the prelude of lecture four.

He gave some very entertaining facts concerning degenerate fish, and crabs, and parasites, and then proceeded to deduce ethical principles from the lives of fish, crabs and larva — a scientific system of ethics for the treatment of degenerate man, or the evolution of tramps. He informed us the way to study the history of degenerate animals was to get the egg and hatch out the original father. In this way the blind fish of Mammoth Cave was proved to be identical with the fish of the Dismal Swamp. These little fish seemed to be the progenitors of Christopher Columbus. They had gone out on an exploring expedition when the water was high and had undertaken to explore the unknown cave, but while they were sailing on this dark sea the water went down, and they got left.

He said the American pig was a degenerate wild boar,

which had nothing to do but to feed on swill and sleep, so that his wild, active, savage life had been reduced to a lazy, satisfied grunt. But how long it would take this fish to lose its fins and the hog his grunt, and reduce back to the monad without eyes or tail, Professor Jordan did not tell us.

He deduced from these facts the doctrine and the remedy for human parasites. He said man degenerated into the "Lord's poor," the "devil's poor," and "paupers." The Lord's poor were produced by misfortune, sickness and lack of training; and pauperism was caused by indiscriminate giving. He illustrated this by a class of human parasites living in the valley of Aosta, where the strong were taken for military service, and the weak permitted to perpetuate their infirmities, producing a people with diseased glands called Goitres. These deformed peasants intermarried with a tribe of idiots south of the Alps, called Cretins, and the progeny was a most wretched and degenerate people. The doctrine concerning this class is called Cretanism. He also rehearsed the stories of the Jake's family, Margaret, the mother of criminals, the Ishmael family, and others.

From these facts he deduced his scientific ethics, which he reduced to three proverbs.

"Never give money to a blind man, for he needs all his strength to compete with men that can see."

"Whoever receives a windfall watches the wind."

"Should the great stream of human charity cease for a week, pauperism would cease."

Joseph Cook says: "The small philosopher's rule is to guess at the half and multiply by two."

Facts are one phase of things, but inferences from facts is quite another. A child may gather a bouquet of beautiful flowers, and tie them together with a string, but only a philosopher can classify them. Any man may quarry stone, but it requires an architect to build a temple.

How the facts concerning the lives of fishes, crabs, *saculina* and blind goby, and the mysteries of embryology are related to human conduct, or how they may be made the basis for a system of ethics, is a mental phenomenon, stranger, more marvelous than any material fact found in the history of life from the monad to the man. What relation has the life of a parasitic crab to the Sermon on the Mount? What is this new gospel of science? this strange extract of crabs and tunicated molusks?

“Never give money to a blind man.” Why? asks the sympathizing heart. Blind men may be paupers, but may not be parasites. Poverty may not be the result of violation of social law, or blindness the result of hereditary. “Neither has this man sinned, nor his parents, that he was born blind,” knocks the bottom out of all the scientific ethics and narrows the doctrine of heredity to its legitimate limits. *It places moral law as the basis of all physical phenomena; reveals the true method for the interpretation of the material world. It is a base line for a new survey of a more satisfactory theodicy, and a broader science.*

He, who made all worlds and is the Author of all law alone, can interpret the mysterious facts of life. Hear the Great Teacher: “Neither hath this man sinned, nor his parents, that he was born blind.” He is not a human parasite, nor a specimen of the violation of the laws of heredity. Look higher! He is a personal sacrifice, standing at the cross-streets, suffering for selfish, sordid souls poorer than he. “Never give money to a blind man!” Hasten, my brother, drop something into that empty dish; drop it in for your own sake—you need it more than he. Ten cents may give him a satisfactory lunch, but how many dollars would it take to satisfy a poor, sordid, selfish soul? A man had better be a Goitre, and have the glanders, or a Cretin idiot, and live in the wilds of the Alps, and be unselfish, than to clothe in fine linen and fare sumptuously

every day, and have a soul that did not spontaneously respond to the wants of a blind man. Which is the parasite? the blind man, or the blind leader of the blind?

Why begin at the crab-end of a man to study him, or to find the laws that govern him? Why study only his anatomy and physiology, and then proceed to make a standard of ethics for him?

What can man know about a temple who has seen only the foundation stones in the quarry, and knows nothing of the plan, specifications and object of the magnificent structure?

"Should the great stream of charity cease for a week, pauperism would cease." When the stream ceases to flow the fountains at the head are dried up. This new gospel of science would dry up the best heart of the world, and man would degenerate into a selfish race of reckless anthropoids.

The only remedy for pauperism, and what is still a more hopeless form of degeneracy, scientific skepticism, is the gospel of Jesus Christ; the old and only remedy for degeneration is REGENERATION.

LECTURE V.

THE GENERAL QUESTION OF SPECIES.

SYLLABUS—Does one species change into another?—The old idea of species passed away forever—Species are like the twigs of a tree disconnected from its parent stem—Change in species analagous to the law of change in words—Is man a descendant of the monkey?

“ The Norway birch is fair ;
 The white trunks shine,
 The green leaves twine,
 The whole tree groweth tall and fine,
 For all it wants is there—
 Water and warmth and air.

“ But follow that persistent tree
 To the limits of endless snow—
 There you may see
 What a birch may be !
 The whole tree showeth plain and free
 How noble plants can grow
 With nine months under snow.”

This is a beautiful poem, dedicated to Dr. Jordan by a California lady. He has honored her by placing it at the head of this syllabus. But it ought to be held too sacred to be perverted. The birch has not changed its species by “ nine months winter’s snow.” It is still

“ A Norway birch—and less than one inch high.”

Its bark is birch, its leaves are birch, its wood is birch. There has been no transmutation of species, no systematic change. The facts are perverted by Dr. Jordan in the interests of an exploded theory.

The great paleontologists, as Curvier, Agassiz, Baisanda, Falconer, Forbes, etc.—the greatest geologists, as

Lyell, Murchison, Sedwick, all teach the immutability of species. If there is anything established among scientists it is the permanency of species.

But the whole superstructure of Darwinism must stand or fall by this dogma of the transmutation of species. Darwin's immortality rests upon this. It is the hinge on which everything turns in this entire discussion. Dr. Jordan knows the scientific world is against him; he ought to know that all the scientific facts are against him. Why does a lover of nature, making a survey in the interests of truth, seek to pettify the case. Why make a definition of species that will suit his convenience and pervert all the facts? To bribe a witness is a high crime. Dr. Jordan makes species only a category of thought—"not an entity at all; only a phase in change." Then he says: "Species are like the twigs of the tree disconnected from its parent stem." Then all forms of nature, both plant and animal, grew out of a common stem. But this is precisely what is to be proved. What a concept for a scientific savant—apples and apes, lions and dandelions, limes and lizards, larva and scientific lecturers all dangling from the same tree. This is the last edition of Darwinian evolution.

Again he says: "The law of change is analagous to the change in words derived from different languages, and gave as an example—*Kerasus* (Greek), changing to *Cerasus* (Latin), *Ceriso* (Italian), *Cereso* (Spanish), *Cerise* (French) and *Cherry* (English)." Well! does not a cherry taste the same in Latin as in Greek? Does the cherry change by changing its name? But by the first definition that cherry is not an entity, and there was nothing to change. The "a" may become an "i" or "e" in passing from the Latin through the French into the Spanish; the bluebird may loose its tail feathers in a storm; the robin may change its hue in winter time, but the robin never becomes a bluebird nor a verb a noun by any kind of *hocus pocus*.

The spelling of words and the feathers of birds have little to do with the genius of words or the *genus* of birds.

In answer to the catagorical question, Is man a descendant of the monkey? the professor was bold enough to answer: "The monkey is not the father of the man, but both have a common ancestry; something far more primitive than either, with the characters of neither." "The differences between man and the lower forms is one of degree—they have diverged from a common center."

Well, what then has become of the law that "like begets like?" "Why all the higher vertebrates are blood relations." Oh, then, the scientific difference between Lord Byron and his dog and our lecturer and his mule is "one of degree." The poet is "a blood relation" of his dog and the scientist is a "blood relation" of his mule. Happy family! But suppose they have diverged from a common center. Why this bifurcation? Why should the monkey keep chattering on in his native words without any improvement in a thousand years, while his brother man becomes a professor of natural history, invents telescopes, discovers unknown worlds and organizes colleges? Why not some monkey somewhere in the past invent a locomotive or a string band, or organize his fellows into a political party, or expound the first chapter of Genesis?

Or why not the digger Indian, who has lived on roots for ages, or Feejian, sinking even lower in the scale, reach the plane of his grandfather and produce the "missing link?" The fact is, man retreats from one degree of degradation to another, but retains personality, conscious self-hood, conscience and reason; no man ever becomes a brute.

Why not produce one example of transmutation or cease to claim the attention of intelligent people? The hybrid is the only apology for this dogma that has been produced. But a hybrid is a monster and not a species. It is neither

an animal or a thing. It is without species, *genus* or family. It is an individual without individuality. It cannot reproduce itself, for there is nothing to reproduce. The interval between the horse and the ass is infinite; they are distinct creations. What, then, must be the interval between the monkey and the man?

LECTURE VI.

DOCTRINE OF DESCENT.

SYLLABUS—Natural selection of the greatest importance—Argument from embryology most convincing—Sterility of hybrids—Darwin felt that the really important point was that the doctrine of descent should be accepted—That life with its powers was originally wreathed by the Creator into a few forms or into one—The animal which won the knowledge of good and evil won a legacy of pain.

This sixth lecture was a general review with the doctrine of the descent of man made prominent. The syllabus was introduced with a long extract from Dr. Edward A. Ross, quoted from the *Arena* of November. Dr. Jordan introduced and endorsed Dr. Ross and called special attention to this quotation: "Science during the last twenty years has been most successful in studying the past. It has traced the origin of institutions and followed the upward path of man. It has lifted the veil of mystery." It says: "See, I can show how our feelings arose. I will lay bare the root of modesty, of filial piety, sexual love, patriotism, loyalty, justice, honor, æsthetic delight, conscience, religion, fear of God. I will explain the origin of institutions like the household, the Church, the State. I will show the rise of prayer, worship, sacrifice, marriage customs, ceremonies, social forms and laws." Nothing is found

mysterious, nothing unique, nothing divine. Man is a formation. The race has accommodated itself to its environment as a stream to its bed. But science, not content with tracing institutions, has been analyzing personality. We see now that there never can be again such an orgie of the Ego as that led by Fichte & Hegel. The doctrine of transmission and inheritance have attacked the independence of the individual. Science finds no Ego, self or will that can maintain itself against the past. Heredity rules our lives like the supreme primeval necessity that stood above the Olympian gods. "It is the last of the fates," says Wilde, "and the most terrible. It is the only one of the gods whose name we know."

It is the "divinity that shapes our ends," and hurls down the deities of freedom and choice.

Science dissolves the personalities into temperaments and susceptibilities, predispositions and transmitted taints, atavisms and reversions. It finds the soul not a spiritual unit, but a treacherous compound of strange contradictions and warring tendencies, with traces of spent passion, and vestiges of ancient sins, with echoes of forgotten deeds and survivals of vanished habits. We are bound to a destiny fixed before birth, and choice is the greatest of illusions.

The final blow to the *notion* of the old Ego is given by multiple individuality. Science tells of the conscious and the sub-conscious, of the higher nerve centers and the lower, of the double cerebrum and the wayward ganglia. It hints at the many voiceless beings that live out in our body their joy and pain. This "is no doubt a hierarchy or commonwealth of psychical units that at death dissolves and sinks below the threshold of consciousness."

Had Dr. Jordan introduced a Chinese leper, or his friend Dr. Ross, in the first stages of smallpox to his audience, he would have been arrested.

But can there be more intellectual and moral poison concentrated in sentences which shine with the beauties of the basalisk ?

We have no hesitation in saying that this extract printed, commended and put into the hands of his audience was an insult to their intelligence, and a moral shock to their religious sentiments ; an impertinence which but few men would have been permitted to impose upon them. Yet it is the logical outcome and a bold and burning statement of the doctrines of this course of lectures on Darwinian Evolution.

If man is a descendant of the brute, and like begets like, personality is impossible, and conscience a misnomer and Christianity a farce ; for God, if there is one, is unknowable. If "each creature is not an ego, but a mosaic of its ancestry," as Dr. Jordan taught in his second lecture, then man is without personality and is but a "multiple individuality, a commonwealth of physical units that dissolve at death and sink below the threshold of consciousness," as Dr. Ross declares, and immortality is an absurdity.

If man is not an ego, then may science dissolve personality into "temperaments and susceptibilities, predispositions and transmitted taints, atavisms and reversions," for the soul is "but a treacherous compound of strange contradictions."

If anatomy and physiology only are consulted, then is man but an animal. A sub-conscious being "of the higher nerve centers and the lower, of the double cerebrum and wayward ganglia," and "the root of modesty, of filial piety, sexual love, patriotism, conscience and religion," are but the vibrations of the ganglia ; and "prayer, worship, sacrifice, marriage ceremony and all social forms," are but the developed instincts of the beaver or the chattering chimpanzee. If "heredity rules our lives," then,

indeed, are "we bound to a destiny fixed before birth and choice is the greatest of illusions."

I like Dr. Ross' way of putting error—there is no sham about it; it is bold—bold and blasphemous; there is hope of reaction. It is better to be shot than poisoned. What kind of an animal was it that "won the legacy of pain?" If an animal, then what of the doctrine of sin and salvation? of Calvary and Christ? What are "echoes of forgotten sins?" Who am I? What am I? I am nobody, I am told, and hence am no where! How far is it to the lunatic asylum?

" Fear, a forgotten form;
Death, a dream of the eyes—
We were atoms in God's great storm,
That raged through the angry skies."

But we are talking, thinking, dreaming atoms.

WHAT IS DARWINISM?

Darwinism assumes to be the scientific method of world-building. It proposes to dispense with the old, supernatural method of attributing to a personal God all life, motion and being, and substitute the doctrines of impersonal force and law; and show the processes in creation are natural and scientific. The conflict, then, is between the supernatural process in creation, and the natural process in generation. The battle is between Moses and Darwin; between the natural or scientific, and the supernatural or religious.

The chasm between these is world-wide, and hence bridgeless. There are two theories of world-building that are to shape the thought, create the atmosphere, and fix the character of universal life in the future.

[Mosaic evolution, or Darwinian development—Was man created by an Almighty fiat, or was he born of a bi-sexual

monad, and developed? Mosaic evolution is world-building by creation. Moses affirms that the world was built by a succession of Almighty fiat. God said "Light! and light was." He said, "Let the earth bring forth grass! and it was so." He said, "Let the waters bring forth abundantly!" "Let the earth bring forth the living creatures after his kind; cattle, and creeping things, and beast!" God said, "Let us make man in our image, after our likeness!"]

The Bible teaches that the real world, with all its forms, and in all its details, was an ideal plan in the mind of God from the beginning; that the world-history, from light, crystal, plant, animal and man was but the unfolding of that plan by Personal presence and Divine power, in the order revealed by Moses.

Darwin says, "the method of world-building was natural, and by a succession of natural births; that all living things have a common ancestry, a double parentage, and are developed by a bi-sexual process from a single form."

Moses says, "The Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul." Darwin replies, in his book of Genesis, "All animals (man included) have descended from one primordial form, into which life was breathed." Moses or Darwin, which? Moses represents man in the beginning of his history as a scientific savant, the peer of Humboldt or Agassiz; a superb linguist and ornithologist, and the highest authority in every department of natural history. "Adam gave names to all the cattle and to the fowl of the air, and to every beast of the field, and whatsoever Adam called every living creature that was the name thereof." He was, therefore, well equipped to lecture before any university club in the beginning.

Darwin asserts that man began as a monad, a cell filled

with protoplasm ; a chemical combination of oxygen, hydrogen, carbon and nitrogen ; a life-stuff related to the seaweed ; a kind of fungus ; which, after a succession of births running through all the varieties of the vegetable world, seaweed, grass, gourd, Washingtonian gigantes, up through the animal kingdom for thousands of years, and after ten thousands of births, through the oyster, crab, crocodile, behemoth, boa-constrictor, seal, sea-gull, salamander, dog and donkey, into a group of anthropoids—the lemur, or half-ape, long-armed ape, gibbon, ourang-outang, chimpanzee, the “missing link,” which was drowned in the Indian Ocean, and whose descendants swam to shore and escaped to Australia, and passed through a series of savages, and finally became men. Mr. Darwin and his disciples are proud of their family tree, and thus supply the scientific world with their genealogical table.

If man has descended from a common parent, through a long line of plant and animal forms, how did a plant become an animal, and an animal a man ? Does not like produce like ? How, then, does a lichen become a lizard, and a lizard a parrot, and the chatting parrot a ward politician ? This is a fair question on the hypothesis of generation from a primordial form, and Darwin does not shrink from answering it. He made his immortality in the solution of this problem, and if it is fairly solved he is entitled to the high place that Professor Jordan has accorded him—“next to St. Paul.”

This problem gave birth to the “Origin of Species,” “the greatest book since St. Paul.” This volume is properly Darwinism ; for evolution, or development, was the child of Lamarck, and the “Descent of Man” was written eleven years after, and after Carl Vogt had written his book.

Professor Jordan tells us there were more than 500,000 animal species, and more still of plants. So, here is a problem of a great many unknown quantities, and very few

equations. Mathematically, it would be impossible; but scientifically, it is easy. Hear Professor Jordan's solution: "Species are not entities at all, but phases in change." A dog and a donkey, a mollusk and a man, are not entities. Well! well! what is an entity? *ens*, *entis*, *enti-ty*!—a thing, a reality, a being. There is no difference between a moss and a mule, only "a phase of change." Then a mule is not a reality! My! my! I wonder how the professor could ride a mule up so many mountain trails, and then pronounce him a non-entity. Call that depraved, developed monad only a "phase in change!" "Am I Romeo? Am I your man? Am I myself?" You may send me to the lunatic asylum to-morrow, because I cannot see how a non-entity can change its phases; but I will never accept the scientific postulate that a mule is not an entity as long as the memories of the army remain.

Suppose species is only a class-name, for this is what the professor must mean, What is a class without individuals? If mules are only a class of horses, does it follow that there is no individual mule? If the moss is only a "phase in change" of the monad, and the mule a "phase in change" of the moss, then what becomes of the monad and moss in this process of evolution? Is not this logomachy completely developed?—a prestidigitation of words where the juggler swallows the sword, and many people believe it is swallowed, when it is only hid away in his sleeve?

Darwin assumed, as the basis of his theory, a succession of births; and the "phases in change" is that of being born.

Let us follow this series as far as we can. The monad is the great-grandfather of the moss; the moss differs from the mule only in time and environment. So, we may write—Moss *plus* "natural selection," *plus* "struggle for existence," *plus* "survival of the fittest," equal mule. But

here the series must stop, for the mule is a hybrid, and there can be no more births. Darwinism ends with the mule, after granting all the hypotheses of this wonderful science.

Neither theology nor metaphysics, science nor mathematics, has been able to span this bridgeless chasm. This hybrid is at the foot of the hill, and will stay there. He has brought whole armies to a halt, and here Darwinism must stay, and man must be an impossibility by this theory, until there can be furnished a legitimate descendant of this depraved hybrid. It is difficult to treat a theory so utterly baseless and preposterous with respectable candor.

DARWINISM IS UNSCIENTIFIC.

The historical method demands that all the facts pertaining to an object are essential to its scientific classification. Science can draw no just inferences concerning man from his anatomy and physiology, or physical conduct; no more than it can from an oak by the anatomical structure and chemical analysis of the acorn.

Why put man in a class with animals when he is as far removed from them as zero is from infinity? It would be more scientific to classify the palace of the Pope with a California wood-yard; the palace has some wood in its structure, but something more. Its wonderful combinations and artistic beauty are proofs of genius—the highest order of mind. Personality, self-consciousness, and spiritual life lift man out of nature and mere animal being into the supernatural and divine, and puts man in a class by himself. What has anatomy and physiology to do with reason, imagination and will? No more than with trigonometry or the Lord's Prayer. As well class the syllogism and binomial theorem with the bones and muscles as to class a mollusk and a monkey with a man.

Science demands that all her theories be sustained by the facts. A theory is a generalization of facts—an induction from facts, not a fancy hunting for facts.

Now, it is admitted that the islands have been inhabited for six thousand years, and that man is less than seven thousand years old; yet there has no fossil been produced of plant, animal, or man, that intimates the Darwinian theory.

The geological record is nature's own affidavit recorded in fossil hieroglyph, and stereotyped by the Almighty, that the Mosaic theory of creation is true. The three great pauses or chapters in the book of nature have never been bridged by any theory.

The Silurian epoch contains at least sixty-five new species; like Melchizedek, "without father or mother." Where did the fish and bird and beast get their backbone? These are distinct forms separated from the past by a wide, impassable gulf. This break in the line of generated forms, of itself, is sufficient not only to pronounce Darwinism unscientific, but false and preposterous.

The third, or human epoch, where man appears infinitely higher still than any vertebrate, is the absolute proof of the Mosaic record that man is a created being, and not born from a lower form.

If to create man by a miracle is too much for a scientific mind to admit, when the fact has been fully authenticated, both by creation and special revelation, what must be the character of that mind that can believe such huge, preposterous theories of their own invention, more marvelous, at least, than creation itself?

Darwinism is not only, then, unscientific, but false and absurd, since it contradicts the facts. The mind that can believe that four times three are fourteen is unbalanced.

The line separating species is the base line of all scientific progress in natural history. No plant has ever crossed

this line into the animal kingdom, and no animal has ever crossed over into the realm of the human. Man began at the head of creation, and he has often descended to the lowest plane; but has never crossed the boundary that separates him from the beast.

Von Baer, the greatest of all thinkers in the line of individual development, declares, "that new forms are without parents, and hence are created." "Breeds among animals," says Agassiz, "are the work of men; species are created by God."

This is the scientific retreat from the entire field, and leaves man with Moses, and Darwin alone still searching for his mother. Professor Jordan, though a pupil of Agassiz, says, "Man creates new species;" but "creates" and "species" are fallacies of ambiguous middle. To produce a dog from a wolf, putting more trot into a horse by cultivating the legs, or making short-horned cattle and sheep, is neither a creation nor change in species. Let him produce a donkey from a dog, and he will command some attention.

Fichte once asked a question that is still unanswered: "Who educated the first pair?" If man was born of the same mother as the monkey, as Professor Jordan declares, then who took care of the first baby? Who taught the first primary school? Darwin, like most men, loves his mother. He says, "For my own part, I would as soon be a descendant of that heroic little monkey, or that old baboon, as from a savage." Shame on such reckless blasphemy! No long-armed ape or old baboon could ever descend to such a moral level. Give me the Australian girl or the fishwoman of Terra del Fuego for a mother, and I may be a partaker of the divine nature and an heir of heaven; but with a monkey mother, I would be a predestined brute. Such a statement is proof of a lop-sided mind and a low moral tone; it is a standing disgrace to that in-

tellectual genius that sleeps beside Sir Isaac Newton. Why should a philosopher and a fanatic sleep together?

DARWINISM AND INSTINCT AND REASON.

Professor Jordan says: "The difference between man and the lower forms are all differences of degree." Then the plant feels and thinks and wills, but on a lower scale. The animal reasons and has notions of right and wrong, but in a lower degree than man. Darwin hunts his facts to prove his notions. The bee is a mathematician; the beaver is a civil engineer; the nightingale a musical genius, differing only in degree from Jenny Lind; the chattering ape, an orator, but not quite equal to Frederick Douglass. Darwin says "that plants have the rudiments of volition," and "at the base, life is the same in plant, animal and man." Is the vegetable fly-trap and the opening and closing of the morning-glory an example of vegetable will? What relation is there between the cell of the bee, the mud dam of the beaver and the song of the thrush and the locomotive, the Brooklyn bridge or the symphonies of Beethoven? What relation is there between the best-trained monkey and the low degree of intelligence found in the Australian girl? She can think, and knows she is a woman, and has learned to operate the telegraph in three years; give her time and opportunity and she will solve a quadratic, for she is human; but the brightest baboon yet known could not learn to read a telegram in a thousand centuries. The distance between instinct and reason, between unconscious individuality, and conscious personality, is infinite. Animals have no mental concepts; no knowledge of logical relations; no notions of right and wrong; no reasoning powers. The ethics of the dog, the horse and the elephant is not the same in kind. Right and wrong are not animal notions, but sensations made through the stomach or nerves by the promise of bread, or the crack of the whip; there is

no analogy between the stomach and the conscience. Instinct has no more relation to reason than the sound of the katydid has to the most magnificent orchestra. A hen will hatch duck's eggs and take care of the ducklings as though they were chickens, for she does not know a chicken from a duck, and can never learn. She will sit on a chalk egg with as much assiduity as she would set on her own eggs, for she does not know the difference between sit and set. Only a self can be educated. All efforts to cross the line between instinct and reason, by an attempt to reduce reason to its lowest form, and raise instinct to its highest manifestation, is a scientific ruse, a logical trick, the mathematical feat of reducing infinity to zero. God has drawn one straight line through nature, and put man on one side and all the plant life and animal being on the other; the divorce is divine, and all efforts to remove that line are preposterous. Darwinism is an assumption built on fanciful analogies assuming that man and the animals are descendants from the same parents.

His Proof.—(1) They are under the same laws of life and hygiene. (2) They are similar in their physical structure. (3) They have a physiological resemblance. (4) They have the same senses, emotions and affections. (5) They have choice, memory and reason, only differing in degree. (6) They pass through the same phases of change in the embryo.

Dr. Jordan says: "Embryology reveals the history of the race; the inside tells its ancestry, the outside its environment." Embryology shows three distinct stages in development; first, plant life, then animal (a fish with gills); then a real baby. This is seemingly the best evidence Darwin has for his theory. This is no doubt a divine picture of the mystery of generation, "the way of the Spirit," the secrets preceding birth. But there is no hint that one is evolved from the other; or that they are devel-

opments of the same life ; but rather, that all forms are here united ; and that man contains all the forms of life below him and all that are above him. He is

"Midway from nothing to the Deity."

DARWINISM, HEREDITY AND ETHICS.

Dr. Jordan says : " Each creature is not an *ego*, but a mosaic of its ancestry "—that is, a union of father and mother, grandfather and grandmother, and not an independent self.

So man might as well be a gilly-flower, or a jelly-fish, or a " blind goby," as a philosopher or scientific lecturer. A man that is not a *self* is nobody. How can you answer an " illusion "? Why talk back when there is no *ego* to talk, and nobody to talk to? I submit to the " primeval necessity," yet not I, but the " temperaments, susceptibilities and predispositions into which *I* am 'dissolved.' " This is said to be " the burning scientific problem of the day." Let it burn till it blisters all the anthropoids that have learned to talk without being self-conscious. He makes man's moral nature only an induction from facts. Conduct, right and wrong, is only an adjustment of means to ends, and belongs alike to all living forms. Fish have their laws of ethics, and provide a home and food for their young ; birds build nests, and protect and feed the birdlings. There is no need of the Sermon on the Mount, for that is only a scientific induction from the facts of life. Darwin has no place for the Holy Spirit ; no need of the Lord's Prayer.

THE ENDOWMENT THEORY UNTHINKABLE AND ABSURD.

To endow matter and leave it to itself to evolve worlds by law and through the agency of force is absurd. It is to put the Supernatural into a sentence, and cut loose from God. What is it to endow matter? To give it a capability

to execute the laws of its being, the plans of the Creator? This whole scheme is an effort to dispense with a personal, present Creator, by substituting abstract terms in his place. There can be no more power in force, divorced from personal Presence, than in the words *fancy* or *fustian*. It is only a word. The Supernatural is not *in* matter; He is on the outside of matter, and all matter, law and force are *in* Him, not *from* Him. "In Him we live and move and have our being."

If matter has self-motion, and can become a solid, a liquid or a gas; form itself into air, water or electricity; can move in straight lines and curves; if it can crystalize into cubes and build itself into pyramids—then evolution is rational. For if it can work out the problems of solid geometry through force, then it can think, and may evolve a Euclid or a Newton. The same kind of Power is essential to the evolution of a crystal of quartz as is necessary to produce a poet or a philosopher. Matter can as well produce a college president as a mollusk. If a monad may evolve a moss, it may evolve a man. Evolution as an endowment of matter, is without a basis in facts; absurd and unthinkable. It is a great barrier to healthy thought, and an insuperable obstacle to highest culture; a basis of sand, upon which to found a university; a poor combination of atheism and pantheism—a fruitless attempt at a scientific philosophy of God. The age is past when such a system of thought can be propagated by money.

THE UNIVERSITY AND RELIGION.

Every professor in every chair in the college of this age is a professor of theology. All preach either with or without license or ordination. More theological problems are discussed in the college lecture and recitation room talks than in the average pulpit; and every student receives a religious bias. The question will be asked: Can matter be

endowed with an impersonal force, or does God uphold all things by the word of his power? It will be answered, and the answer will depend, not on the charter of the university, but on the professor in the chair. Conscience, under the restraint of Christian ethics, is the great want of the race, and the great want of the university of the age. Conscience, without a Holy Ghost to reprove the world of sin, and of righteousness, and of judgment, is of no more moral value to man than the liver, or any other gland. Any college that claims that it does not meddle with questions of religion or religious problems is a fraud.

Dr. Jordan is a specialist; his special field is the geographical distribution of plants and animals. He is an out-door student, and has taken his field notes from both continents; the mountains and valleys of Europe, Asia and Africa have been traversed by him. But his special specialty is Ichthyology; in this he is an enthusiast. His lectures teem with fishes and crabs and tunicates. He knows more about the fishes than all the fishes of the sea know about themselves—their homes and hiding places, habits and family affairs; their socialistic societies, their laws and confederations. He has made the acquaintance of their great-grandfathers, the hoary-headed peoples of the past; he can tell the little mountain trout where it got its beauty spots, how it got the wag in its tail and why it is not a behemoth. He can give the name and the nurse of the original fish, the anatomy and history of all the finny tribes from the sardine to the sulphur-bottom whale. He is modest and genteel and a magnificent specimen of the "survival of the fittest."

His literary masters are Boyesen, Walt Whitman, Thoreau, Goethe and the Chinese classics. His confession of faith is formulated by Boyesen—

"A sacred kinship I would not forego
Binds me to all that breathes."

The world is moving forward with a velocity heretofore unknown to history. New-thought systems and race habits and impulses are reconstructing old traditions, worn-out dogmas and exploded theories. Ethical and philosophical systems mingle and boil and foam; truth clashes with error, error writhes and dies. The conflict of ideas was never so great; an intellectual and social evolution is going on, and a new synthesis of thought must be the product.

But evil is never to be destroyed; nor is it to be shut up in prison as a culprit; nor can it be banished by force.

It defies armies, mocks at mobs, resists legislatures and outlives the guillotine and the gallows. Yet it may be exposed by invincible logic and canceled by the truth.

The evil that now exists is less than ever before because truth is greater. Pessimism is a bastard—an illegitimate deduction from facts. Optimism is scientific, philosophic, religious. The college, the press, the lectureship will live and knowledge will increase; mind will be stimulated and developed; but scientific remedies for moral evils will be found in the future *Materia Medica* among the nostrums. Armageddon is not in "the American brain;" the battleground between good and evil, truth and error is in the human heart, and no intellectual culture, eleemosynary institutions or religious clubs can ever regenerate the race.

A Christianity without an atonement is a Christianity without a Christ. No man can cut loose from the Decalogue and by intellectual attainment and deeds of charity make an atonement for himself.

What the race needs, and what the age needs most, is
THE EVOLUTION OF THE HEART by the power of the
HOLY GHOST.

"Darwin and After Darwin," two volumes, just from the press, by George J. Romanes, has nothing new—Darwinism reduces to evolution of species by natural selection and rejects supernatural creation, and is absurd.

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